

WHAT IS CLAIMED IS:

Sub C1

1. A zinc finger ~~...~~ binds to a target subsite wherein amino acids –1 through +6 of the zinc finger and the nucleotide sequence of the target subsite are as specified in Table 6.

Sub A1

2. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence DXSNXXR and the nucleotide sequence of the target subsite is GAC.

3. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence RX(D/S)NXXR and the nucleotide sequence of the target subsite is GAG.

4. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence TXGNXXR and the nucleotide sequence of the target subsite is GAT.

5. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence (Q/T)XSNXXR and the nucleotide sequence of the target subsite is GAT.

6. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence QXG(S/D)XXR and the nucleotide sequence of the target subsite is GCA.

20 7. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence RXDEXXR and the nucleotide sequence of the target subsite is GCG.

8. A zinc finger according to claim 1 wherein amino acids –1 through +6 of the zinc finger have the sequence QXDSXXR and the nucleotide sequence of the target subsite is GCT.

88  
57

A

*Sub A concl'd*

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9. A zinc finger according to claim 1 wherein amino acids -1 through +6 of the zinc finger have the sequence QX(G/A)HXXR and the nucleotide sequence of the target subsite is GGA.

10. A zinc finger according to claim 1 wherein amino acids -1 through +6 of the zinc finger have the sequence DXSHXXR and the nucleotide sequence of the target subsite is GGC.

11. A zinc finger according to claim 1 wherein amino acids -1 through +6 of the zinc finger have the sequence RXDHXXR and the nucleotide sequence of the target subsite is GGG.

10 12. A zinc finger according to claim 1 wherein amino acids -1 through +6 of the zinc finger have the sequence RXDAXXR and the nucleotide sequence of the target subsite is GTG.

13. A nucleic acid encoding a polypeptide wherein the polypeptide comprises a zinc finger according to claim 1.

15 14. A segment of a zinc finger comprising a sequence of seven contiguous amino acids as shown in any of Tables 1-5.

15. A nucleic acid encoding a polypeptide wherein the polypeptide comprises a segment of a zinc finger according to claim 14.

20 16. A zinc finger protein comprising first, second and third zinc fingers, wherein the zinc fingers comprise respectively first, second and third segments of seven contiguous amino acids as shown in a row of Tables 1-5.

17. A nucleic acid encoding a zinc finger protein according to claim

16.

*ADD C3*